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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,661

02/15/2007

Yoav Bar-Yaakov

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EXAMINER

BUIE, NICOLE M

ART UNIT

PAPER NUMBER

1796

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,661	Applicant(s) BAR-YAAKOV ET AL.	
	Examiner NICOLE M. BUIE	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 25-36 is/are pending in the application.
- 4a) Of the above claim(s) 14-21 and 32-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The amendment filed 09/05/2008 has been entered. Claims 1-21 and 25-36 remain pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, 11, 25-28, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto et al. (JP049324093A, see machine translation for citation).

Regarding claims 1-2, 4, and 25, Yamamoto et al. discloses a composition consisting essentially of a solidified fluoropolymer (“granular PTFE”) in flame retardants (e.g. antimony trioxide, tetrabromobisphenol A) ([0020],[0021]), where when the granular PTFE composition is crushed immediately at the time of melt kneading, the flame retardant distributes uniformly into resin [0007] (which implies the fluoropolymer is evenly dispersed in the flame retardants), absent objective to evidence to the contrary.

Regarding the method limitations of the solidified molten suspension of a fluoropolymer recited in claim(s) 1, the examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated

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in Thorpe, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. *In re Pilkington*, 411 F. 2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process).

Regarding claim 3, Yamamoto et al. discloses a composition wherein said fluoropolymer is enveloped by the flame retardant (Since the fluoropolymers are evenly dispersed in flame retardants, the fluoropolymer would be enveloped by the flame retardant) [0007], objective to evidence of the contrary.

Regarding claim 7, Yamamoto et al. discloses a composition containing an amount of fluoropolymer from 0.1 wt% to 50 wt% which anticipates the claimed range [0011].

Regarding claim 11, Yamamoto et al. discloses a composition further comprising additional additives, such as UV absorbers, lubricants, colorants, antioxidants, or reinforcement additives [0015].

Regarding claim 28, Yamamoto et al. discloses a composition containing an amount of fluoropolymer from 0.1 wt% to 50 wt% (as compared to from 0.1 wt% to 60 wt% as required by said claim) [0011].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-6, 8-10, 12-13, 26, 27, and 29-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP049324093A, see machine translation for citation) as applied to claims 1 and 2 above.

Regarding claims 5-6, 9-10, 12-13, 26-27, 30, and 31, Yamamoto et al. discloses a composition as shown above in claim 1. Yamamoto et al. further discloses additional flame retardants e.g. brominated bisphenol epoxy resin, an oligomer of tetrabromobisphenol A, brominated polystyrene, brominated alkyl triazine compound, octyl diphenyl phosphate) [0018].

It would have been obvious to one of ordinary skill in the art at the time of invention to use a auxiliary flame retardant with additional flame retardant, and the motivation to do so would have been as Yamamoto et al. suggests, to improve flame retardancy of a composition [0012].

However, Yamamoto et al does not explicitly disclose the melting point and melt viscosity. Since Yamamoto et al. does disclose flame retardants substantially identical to the instant claim (see [0026]-[0027] of the corresponding PG Pub of the instant specification), the

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claimed properties of the flame retardants would have the same results as the prior art, absent objective evidence to the contrary. “Products of identical chemical composition cannot have mutually exclusive properties.” A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F. 2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). See MPEP 2112.01.

Regarding claims 8 and 29, Yamamoto et al. discloses a composition as shown above in claim 7 and 28. Yamamoto et al. discloses a composition containing an amount of fluoropolymer from 0.1-50 wt% (as compared to from 0.5 wt% to 20wt% as required by said claim)[0011]. It would have been obvious to one of ordinary skill in the art at the time of invention to have selected the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to be a prima facie case of obvious. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2144.05.

Response to Arguments

Applicant's arguments have been fully considered but they are substantially persuasive. The following comments apply:

A) Nishihara et al. (US 6,093,760) has been withdrawn from the rejection since the claimed properties of the flame retardant are inherent in Yamamoto et al. (JP 049324093 A) given that they employ retardants of the same type.

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A) Applicant's argument that Yamamoto et al. teaches a composition comprising polytetrafluoroethylene and an auxiliary flame retardant (aFR) in a mixture of two solids, whereas the instant application relates to a composition consisting of fluoropolymer homogeneously dispersed in a flame retardant (P2) is not persuasive. The applicant's claims do not exclude materials other than the flame retardant and PTFE.

B) Applicant's argument that flame retardants are mentioned by Yamamoto et al. in a long list of "additives", clearly showing that such ingredient is not essential to their invention (P2) is not persuasive. Yamamoto et al. teaches that the auxiliary flame retardant improves fire retardancy with a flame retardant [0012]. One of ordinary skill would appreciate that if a fire-assistant is essential, and this component serves as a synergist with a flame retardant, then it is clear that a flame retardant is to be added.

C) Applicant's argument that Yamamoto et al. neither teaches melting the auxiliary flame retardant, nor mixing solid PTFE in said molten solution, during the preparation of their compositions (P2) is not persuasive. The same product is realized despite the fact that a different approach is used to make it because when the granular PTFE composition is crushed immediately at the time of melt kneading, the flame retardant distributes uniformly into resin [0007] (which implies the fluoropolymer is evenly dispersed in the flame retardants), absent objective to evidence to the contrary. The PTFE and flame retardant are never actually mixed prior to their incorporation into the polymer host (and, thus, equivalent particles are never realized) but [0015] of Yamamoto et al. seems to refute this idea.

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Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE M. BUIE whose telephone number is (571)270-3879. The examiner can normally be reached on Monday-Thursday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571)272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. M. B./
Examiner, Art Unit 1796
1/21/2009

/Marc S. Zimmer/

Primary Examiner, Art Unit 1796